

We claim:

1. A method for grouping cells comprising:
generating a linear program representing a sum of weighted values associated with each cell and each edge between adjacent cells and grouping constraints; and
assigning a cell to a group based on solutions of the linear program.
2. The method as in claim 1 wherein the solutions comprise fractional values.
3. The method of claim 1 wherein each cell comprises a wireless cell.
4. The method of claim 1 wherein the weighted values associated with each cell represent a paging cost and the weighted values associated with each edge between adjacent cells represent an updating cost.
5. The method of claim 2 further comprising rounding the fractional values into integer values.
6. The method as in claim 5 further comprising rounding the fractional values using region growing.
7. The method as in claim 1 wherein the linear program comprises a variable, where the variable equals:
a first value, if elements i and j belong to different groups, or
a second value, if i and j belong to the same group.
8. The method as in claim 7 wherein the first value equals 1 and the second value equals 0.
9. The method as in claim 1 wherein the group comprises a location area associated with one or more wireless networks.
10. The method as in claim 5 further comprising approximating costs associated with updating and paging operations of one or more wireless networks from the rounded values.
11. A method for grouping cells in a line comprising:
generating a dynamic program representing a sum of weighted values associated with each cell and each edge between adjacent cells and grouping constraints; and
assigning a cell to a group based on solutions of the dynamic program.

12. A programmed device for grouping cells operable to:
generate a linear program representing a sum of weighted values associated with each cell and each edge between adjacent cells and grouping constraints; and
assign a cell to a group based on solutions of the linear program.
13. The programmed device as in claim 12 wherein the solution comprises fractional values.
14. The programmed device of claim 12 wherein each cell comprises a wireless cell.
15. The programmed device of claim 12 wherein the weighted values associated with each cell represent a paging cost and the weighted values associated with each edge between adjacent cells represent an updating cost.
16. The programmed device of claim 13 further operable to round the fractional values into integer values.
17. The programmed device as in claim 16 further operable to round the fractional values using region growing.
18. The programmed device as in claim 12 wherein the linear program comprises a variable, where the variable equals:
a first value, if elements i and j belong to different groups, or
a second value, if i and j belong to the same group.
19. The programmed device as in claim 14 wherein the first value equals 1 and the second value equals 0.
20. The programmed device as in claim 12 wherein the group comprises a location area associated with one or more wireless networks.
21. The programmed device as in claim 12 further operable to approximate costs associated with updating and paging operations of one or more wireless networks from the rounded values.
22. A programmed device for grouping cells in a line operable to:
generate a dynamic program representing a sum of weighted values associated with each cell and each edge between adjacent cells and grouping constraints; and
assign a cell to a group based on solutions of the dynamic program.